

Massage Therapy Research Home Study Course

3 CE Hours
Text and Online Study Guide

Presented by the:
Center for Massage Therapy Continuing Education

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It is the responsibility of the practitioner to determine the appropriateness of the principles presented in terms within the scope of practice. This information is in no way meant to diagnose or treat medical conditions.

Instructions for the Massage Therapy Research home study course

Thank you for investing in the Massage Therapy Research home study course, a 3 CE hour course designed to further your knowledge on the topic of research in the massage therapy field. This guide will contain all of the instructions you will need to complete this course. This is a 3 CE hour course, so that means it should take you approximately 3 hours to read the text, watch the online videos, and complete the examination and course evaluation.

The bulk of this course is presented through online videos. There are approximately 2 ½ hours of online videos explaining massage research and discussing research studies from The International Journal of Therapeutic Massage & Bodywork.

The following are steps to follow in completing this course:

- 1. Read the instructions and text.**
- 2. Watch the online videos at:**
<https://www.youtube.com/playlist?list=PLnvS9HaUaKtbXX8sn--bxwenaMBq0sYDm>.
- 3. Access the online examination in your account at www.massagetherapyceu.com.**
- 4. Complete your examination and print your certificate. The exam is open book and there is no time limit for completion.**

You must pass the exam with a 70% or better to pass this home study course. You are allowed to access and take the exam up to 3 times if needed. There is no time limit when taking the exam and you can save your answers and return at a later date if you like. Feel free to review the text while taking the exam. There are no trick questions on the exam. All of the answers are clearly found in the text and/or the online videos. The exam is also included at the end of the text for review before taking the exam.

It is advised to answer the exam questions in the study guide before testing online. That way, when you are testing you do not have go back and forth through the online exam.

Good luck as you complete this course. If you have any questions please feel free to contact us at 866-784-5940, 712-490-8245 or info@massagetherapyceu.com. Most state boards require that you keep your “certificate of achievement” for at least four years in case of audit. Thank you for taking our Massage Therapy home study course.

Massage Therapy Research Text

What is research?

Research is a general term which covers all types of studies to find responses to questions by means of a scientific approach. *Research* can be defined as:

“The systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions.”

Research is an investigation to describe, explain, predict, and control an experimental phenomenon, such as the effects of massage therapy. It consists of steps such as finding a topic, performing the study, interpreting the results, and presenting the results. In practice, research methods vary widely depending on the topic, needs of the study, and/or the person conducting the research. Research is not an independent activity, but rather an activity of the entire entity to which it pertains. It takes knowledge expanding on previously acquired knowledge to perform new research studies and present newly acquired data on any topic of study. Research is an ongoing, cooperative process with no finishing point.

The general aims of research are to:

- Define
- Describe
- Determine the causes
- Determine the effects
- Explain
- Observe
- Predict

What are the steps in the research process?

Depending on where you look and the type of research, you may find anywhere from 6 to 15 steps on performing a research study. For the purpose of this course, there are 9 basic steps in the research process. Each one is outlined below. Each step also gives examples using a hypothetical research study topic: “the effectiveness of massage therapy on fibromyalgia”.

1. Identify the topic – The first step in the research process is to develop a topic, identify a problem, and/or state a hypothesis. The topic can be anything the researcher feels is worth investigating. The topic serves as the focus of the study, and in many cases, the topic will be stated in hypothesis form, such as “Is massage effective in relieving fibromyalgia pain and fatigue?”. Selecting the topic of research is the most important step. Without a topic, the study will not proceed.
2. Review prior research and literature – After a topic is developed, it is important to read and review other similar, relevant studies and literature. This allows the researcher to learn more about the topic being investigated. Reviewing prior research and literature can be done by internet searching, electronic database searching, reading journals/magazines, and reviewing

books. The review of literature educates the researcher on what similar studies have already been conducted on the topic, how they were conducted, and what results were reported.

3. Specify/clarify the purpose of the study – Sometimes the initial topic of the study is too broad in subject matter. After comprehensive literature review and thought, the researcher may go back and narrow the scope of the study or hypothesis. For example, instead of “the effectiveness of massage therapy on fibromyalgia” as a topic, the researcher may narrow down the topic to “the effectiveness of deep tissue massage on people diagnosed with fibromyalgia experiencing pain and fatigue”. The resulting hypothesis could then be “Does receiving 30 minute massages, three times per week for 4 weeks, decrease fibromyalgia pain and fatigue?”.
4. Define the concepts and terms – The concepts and terms are words and/or phrases used throughout the study that need to be defined in advance to minimize confusion for the audience. Defining any applicable terms and concepts in advance will help readers understand the meaning of the study as they apply. For example, in the hypothetical study on fibromyalgia, terms that may need to be defined are fibromyalgia, deep tissue massage, fibromyalgia fatigue, fibromyalgia pain, and/or fibromyalgia diagnosis.
5. Define the population, goals, and objectives – Research projects can focus on many different things such as people, ideas, events, philosophies, healthcare, cultures, facilities, finances, trends, styles, genders, etc. There are thousands of options available for researchers to choose from. This step in the research process clearly states the population of the study and the objectives of the study. For example, if the study is “the effectiveness of deep tissue massage on people diagnosed with fibromyalgia experiencing pain and fatigue”, the population could be defined as “people who have been diagnosed with fibromyalgia in the past two years who are experiencing symptoms of pain and fatigue”. The goal and objective of the study would then be to determine if a set deep tissue massage regimen, such as 30 minute deep tissue massages, 3 times per week for 4 weeks, has an effect on a person diagnosed with fibromyalgia experiencing pain and fatigue.
6. Develop the plan of study – The plan of study is essentially the back bone of the entire study. It states exactly how the study will proceed, from beginning to end. The plan of study outlines:
 - a. Who will be participating in the study (e.g. 50 people diagnosed with fibromyalgia in the past two years experiencing symptoms of pain and fatigue)
 - b. The definition of the populations/groups (e.g. 2 groups, a test group and a control group, of 25 people each diagnosed with fibromyalgia with in the past two years)
 - c. How the study will be carried out (e.g. the test group will receive 30 minute deep tissue massages, three times per week for 4 weeks and the control group will receive their regular medical treatment)
 - d. What data will be collected (e.g. pain scale rating questionnaires, interviews, and medical assessment)
 - e. How and when data will be collected (e.g. before and after the 4 week massage period)
 - f. Where data will be collected (e.g. a medical facility or massage practice)
 - g. How the results will be reported (e.g. formal typed report with charts, graphs, and/or statistics)

7. Collect the data – Once the plan of study has been created and finalized, the actual study is carried out and data collection begins. Every study conducted has some type of data collection. Some studies collect data throughout the study, while other studies collect data at the beginning and at the end, or only at the end. In the hypothetical study on fibromyalgia, the collection of data is done both at the beginning and at the end.

The collection of data is imperative to the study because it sets a base point for the research and helps to answer the hypothesis. For example, if a pain scale rating questionnaire is given to each participant asking them to rate their pain and fatigue on a scale of 0-10 (with 10 being the worst) in both the beginning and the end of the study; those scores will be compared to determine if the massage treatment made a difference. If the scores remain the same, the treatment did not have an effect. If the scores are different, the treatment most likely had some kind of effect. Without data collection, there is no way to prove or disprove the hypothesis.

8. Analyze the data – Once all of the data is collected and the study is complete, the researcher then analyzes the data to determine if the hypothesis can be answered or explained. For example, the researcher would collect pain scale rating questionnaires, interviews, and medical exams from both groups and compare each person’s beginning questionnaire, interview, and exam to their ending questionnaire, interview, and exam. The researcher is looking to see what, and if any differences exist in the data to determine if the deep tissue massage treatment had an impact on fibromyalgia pain and/or fatigue levels.
9. Present the data – Any and all results of the study are then composed in a report containing data findings explained in paragraph form as well as in charts, graphs, diagrams, and/or statistics. Researchers can include anything and everything relative to the study in this report. A summary of this report is called an abstract. The results may not always be conclusive, and can either prove or disprove what the researcher proposed in the beginning of the study.

The above 9 steps are summarized in the table below.

STEP	EXAMPLE
1. Identify the topic or question	The effectiveness of massage therapy on fibromyalgia
2. Review prior research and literature	Look for similar or recent studies that have been performed
3. Specify the purpose of the study	Does receiving 30 minute deep tissue massages, three times per week for 4 weeks, decrease fibromyalgia pain and fatigue
4. Define any concepts or terms	This will clarify concepts and terms for readers
5. Define the population, goals, and objectives of the study	Population - People diagnosed with fibromyalgia in the past two years experiencing pain and fatigue Objective/goal – To determine if receiving 30 minute deep tissue massages, three times per week for 4 weeks, decreases fibromyalgia pain and fatigue
6. Develop the plan of study	Pain questionnaires, interviews, and medical

	exams will be given both before and after the 4 week deep tissue massage period
7. Collect the data	Conduct the research and collect the surveys, questionnaires, and exams
8. Analyze the data	Compare the before and after data
9. Present the data	Report the results and the differences if there are any

As mentioned, there are many ways to carry out research. Roughly speaking there are two main approaches to conducting research studies, qualitative and quantitative.

Qualitative Research

Qualitative research studies focus primarily on explanations, descriptions, meanings, and social phenomena rather than statistics and statistical information. Qualitative studies are designed to explain the behavior of a group and the motivations that drive it in reference to a specific topic. Qualitative research is used traditionally in the study of society and relationships between individuals, but can also be used in market research and other situations. Qualitative researchers aim to explain human behavior and the motivations that compel such behavior. Qualitative studies are used to collect data about the cultural values, opinions, and behaviors of societies as well as identifying aspects such as social norms, gender roles, and religion.

Common methods of data collection used in qualitative research include:

- Content analysis
- Focus groups
- Interviews
- Observation and notation
- Pilot testing

There are four major types of qualitative research. They include:

- Phenomenology
- Ethnography
- Grounded theory
- Case study

Phenomenology is the “study of phenomena”. It is the descriptive study of how people experience a phenomenon. Phenomena can be events, situations, experiences, or concepts (e.g. love, death of a loved one, a particular religion, back pain). The basic question asked by the researcher in phenomenology is: “What is the meaning and/or rudimentary experience of this phenomenon by a person, group of people, or a specific population?”.

Ethnography means “portrait of people”. Data collected in ethnographic studies defines and explains the culture of a group or society. The basic question asked by the researcher in ethnography is: “What are the cultural features of this group of people or of this society?”. Ethnographic studies require comprehensive investigation by the researcher and include methods such as interviewing and observation. The researcher attempts to interpret data from the viewpoint of the population of the study. The results provide in depth descriptions of the culture or the group being studied

communicated from the perspective of the group. In many cases, the researcher will return to the group to check the results with the participants to validate the data before presenting the findings.

Grounded Theory research is the development of a new theory or idea generated from the collection and analysis of data about a particular topic or idea (e.g. healthcare, grief process, spirituality, holistic care). The concepts discovered from a grounded theory research study are new data about an existing topic and are used to develop new theories about the existing topic or idea. The basic question asked by the researcher in grounded theory research is: “What theory emerges from analysis of data collected about a current phenomenon?”. Many different data collection methods are used in grounded theory research such as interviews, observation, and literature review.

Case Study research is the comprehensive explanation, interpretation, and analysis of one or more cases. “Cases” can be a person, group, organization, institution, decision, or event. The basic question asked by the researcher in case study research is: “What are the features and characteristics of this single case or of these comparison cases?”. Case study research can be basic (e.g. reviewing a single case) or more complex (e.g. analyzing a social situation over a period of time).

Quantitative Research

Quantitative research is a scientific research method in which numerical and statistical figures are used to present information about phenomena. Data collection in quantitative studies generates statistical, mathematical, and/or numerical data about a topic or idea (e.g. the effects of massage therapy). The quantitative researcher asks a specific question, such as “How many males receive massages each month in the United States?”, and then collects a sample of numerical data from participants to answer the question. Quantitative research can be used to describe variables/relationships, to examine relationships among variables, and/or to determine cause-effect relationships.

Common methods of data collection used in quantitative research include:

- Experiments
- Measuring values
- Numerical rating scales
- Questionnaires
- Surveys

There are four major types of quantitative research. They include:

- Descriptive
- Correlational
- Causal comparative
- Experimental

Descriptive research describes the existing status of a phenomenon, variable, or subject. It involves collecting data in order to test a hypothesis or to answer questions about the topic of the study. It determines and states the way things are. A hypothesis (e.g. “How often does the average person receive a massage?”) is often used and the data collected answers the question in statistical form.

When determining a hypothesis in descriptive research, questions should begin with “How much?”, “How often?”, or “what percentage?”. Most often, descriptive research questions focus on only one variable and one group. However, they can include multiple variables and groups.

Correlational research determines whether and to what degree a relationship exists between two or more variables/topics using statistical data. The relationship, or the result, is expressed by a number between .00 and 1.00 (.00 being no relationship and 1.00 being a very strong relationship). This type of research does not determine a cause-effect relationship, it just determines if any relationship is present. Correlational research usually contains one group with two or more variables.

Examples of correlational research topics include:

- The relationship between income level and people who receive massages regularly
- The relationship between the presence of a medical condition and people who receive massages regularly
- The relationship between massage therapy and physical therapy

Causal comparative research attempts to determine causes for an existing state. Causal comparative studies typically involve two or more groups and one independent variable that is not altered or changed. There is usually a control group and a test group, predetermined by natural factors (e.g. either they have fibromyalgia or not). The test group is exposed to the independent variable, the control group is not. Data collected compares the results from each group in an attempt to establish a cause-effect relationship.

Experimental research is similar to causal comparative research with two main differences: in experimental research the variable can be altered and is given to both groups; and, the groups are defined by the researcher, not by natural factors. Experimental research uses the scientific method to establish a cause-effect relationship. In experimental research, subjects are randomly assigned to experimental treatment and control groups who are treated the same except for the treatment variable (e.g. type of massage treatment given).

Examples of experimental research include:

- The effect of lymphatic massage on edema
- A comparison of the effect of Swedish massage vs. deep tissue massage on pain
- A comparison of the effect of reflexology vs. Swedish massage on stress hormone levels

Why is the study of research in massage necessary?

Many massage therapists receive little to no education on the topic of massage research in their initial training. Meaning, if massage therapists want to learn about the effects of massage therapy and practice evidence based massage, they have to learn those skills after completion of school. Historically, the massage industry has not been known to focus initial training on the value of research or on the known and documented effects of massage. The NCBTMB and leaders in the massage profession are attempting to change this by creating websites related to massage research (e.g. www.massagetherapyfoundation.org), requiring research education courses (such as this one), publishing articles in magazines (such as *Massage Therapy Journal* and *Massage Magazine*), and performing and publishing further research studies on the effects of massage.

Research performed on the effectiveness of massage therapy is invaluable to massage professionals. Massage research enhances the credibility of the profession, allowing qualified massage therapists to take their rightful place in the healthcare field. Research performed on massage documents proves that what massage therapists do truly makes a difference in the health of clients/patients. Positive effects of massage which are confirmed by research raise the respect for what qualified massage therapists offer. Documented evidence may also help massage therapists and body workers choose the best treatment methods for their clients' issues.

According to a recent survey performed by the American Massage Therapy Association (AMTA), 19% of adults reported discussing massage therapy with their doctors and/or healthcare providers. Of those 19%, more than half (58%) reported their doctors either recommended or strongly encouraged it. In this same survey, 63% of massage therapists reported receiving referrals from other healthcare professionals. Surveys such as these suggest that massage in the healthcare field could be an emerging trend. Research supporting the effectiveness of massage allows healthcare providers to confidently refer patients to massage therapists.

What does science say about the effectiveness of massage?

A considerable amount of the scientific research performed on massage therapy is preliminary, but much of the evidence points toward beneficial effects of massage on pain, hormone levels, circulation, and other symptoms associated with many conditions. Some evidence may also suggest that the beneficial effects may be short term; meaning that people need to keep receiving massages for the benefits to continue. Future research is the key in supporting the positive effects of massage therapy, whether they are short term or long term.

Research confirms that massage is effective for a variety of illnesses and conditions. Massage therapy and bodywork treatment has been shown to:

- Decrease labor time in expectant mothers
- Decrease pain in cancer patients
- Decrease the symptoms of carpal tunnel syndrome
- Improve blood sugar levels in diabetics
- Improve weight gain in pre-term infants
- Increase circulation
- Increase immune function
- Increase joint flexibility
- Increase lymph flow
- Increase range of motion
- Lower blood pressure
- Reduce anxiety
- Reduce back pain
- Reduce blood pressure and heart rate
- Reduce edema
- Reduce headache frequency
- Reduce post-operative pain
- Reduce recovery time in athletes
- Reduce scarring in burn patients

- Reduce spasms and cramping
- Reduce stress levels
- Relieve migraine pain

Researchers are continuing to study the effects of therapeutic massage on many conditions and/or situations, including:

- Anxiety
- Arthritis
- Athletic performance
- Cancer (improving quality of life)
- Carpal tunnel
- Diabetes
- Fibromyalgia
- Headaches
- High blood pressure
- HIV/AIDS (improving quality of life)
- Immune function
- Infant care
- Mental health
- Migraines
- Pain and pain syndromes
 - Neck pain
 - Chronic pain
 - Low back pain
 - Pain syndromes
- Pregnancy
- Pre-term birth
- Stress

It is important to remember that massage therapy research is at the ground level. More and more research studies on the effectiveness of massage are being performed each year. Organizations like the Massage Therapy foundation, the Touch Research Institute, and the National Center for Complementary and Alternative Medicine are making massage therapy research a priority for the future.

What is Research Perch?

Research Perch is a podcast (online video) designed to help you learn how to use massage therapy research in your practice. Each episode takes a specific article from the International Journal of Therapeutic Massage and Bodywork (IJTMB) and discusses it so you know how it applies to you. Most of the online videos for this course use Research Perch's discussion of current research studies on the effectiveness of massage. You can access all of the Massage Therapy Foundation's Research Perch videos by going here: <http://massagetherapyfoundation.org/massage-research/research-perch>.

What other sources of massage research are available?

The Massage Therapy Foundation along with the American Massage Therapy Association have recently issued several press releases summarizing the latest research on the effectiveness of massage therapy. They are copied below from: <http://massagetherapyfoundation.org/massage-research/research-tools>.

1. **New Research Analysis Indicates Massage Therapy Strongly Recommended for Pain Management** – EVANSTON, Ill. May 10, 2016 – Based on the evidence, massage therapy can provide significant improvement for pain, anxiety and health-related quality of life for those looking to manage their pain. This is the conclusion of a collaborative meta-analysis of research on massage therapy for pain conducted by Samueli Institute and commissioned by the Massage Therapy Foundation, with support from the American Massage Therapy Association. The first part of the three-part review and analysis has been published online by the journal Pain Medicine.

Pain is a major public health concern, affecting approximately 100 million Americans.¹ It is currently recognized as the most compelling reason for an individual to seek medical attention, and accounts for approximately 80% of physician visits.^{2,3} Not only are individuals affected, but also their families, the national economy and health systems. It is estimated that chronic pain accounts for approximately \$600 billion in annual health care expenditures and lost productivity.^{3,4} This annual cost is greater than the cost of other national priority health conditions, highlighting the significant economic burden of pain.

Based on the evidence, massage therapy, compared to no treatment, should be strongly recommended as a pain management option. Massage therapy is conditionally recommended for reducing pain, when compared to sham or other active comparators, and improving mood and health-related quality of life, compared to other active comparators. ⁵

Pain is multi-dimensional and may be better addressed through an integrative approach. Massage therapy is commonly used among people seeking pain management and research has generally supported its use. But, until now there has been no published, rigorous review of the available research and evidence for its efficacy for pain populations.

This systematic review and meta-analysis is the first to rigorously assess the quality of massage therapy research and evidence for its efficacy and effectiveness in treating pain, function-related and health-related quality of life outcomes for people with various types of pain.

1 Institute of Medicine (U.S.). Committee on Advancing Pain Research Care and Education. Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research. Washington, D.C.2011.

2 National Center for Health Statistics. Health, United States, 2006, with Chartbook on Trends in the Health of Americans. Hyattsville, MD2006.

3 Jamison R, Edwards R. Integrating Pain Management in Clinical Practice. Journal of clinical psychology in medical settings. 2012;19(1):49-64.

4 Fishman S, Young H, Lucas A, et al. Core competencies for pain management: results of an interprofessional consensus summit. Pain Medicine. 2013;14(7):971-981.

5 Crawford C, Boyd C, Paat C, et al. The Impact of Massage Therapy on Function in Pain Populations – A Systematic Review and Meta-analysis of Randomized Controlled Trials: Part I, Patients Experiencing Pain in the General Population. Pain Medicine <http://painmedicine.oxfordjournals.org/content/early/2016/05/06/pm.pnw099>

- 2. New Research Analysis Indicates Massage Therapy Shows Promise for Pain & Anxiety in Cancer Patients** – EVANSTON, Ill. August 17, 2016 – Based on the evidence, massage therapy shows promise for reducing pain intensity/severity, fatigue, and anxiety in cancer populations compared to the active comparators evaluated in a new systematic review. This is the conclusion of a collaborative meta-analysis of research on massage therapy for pain conducted by Samueli Institute and commissioned by the Massage Therapy Foundation, with support from the American Massage Therapy Association. This review and analysis is published in the August issue of the journal *Pain Medicine*.

The study concludes that patients should consider massage therapy as a therapeutic option to help manage their cancer pain.

Pain is the most common and debilitating symptom among cancer patients. While the exact prevalence of pain varies depending on the type and stage of cancer, research shows that pain generally affects over 50% of those undergoing cancer therapy and up to 90% with advanced cancer experience pain [1]. According to a 2007 meta-analysis, which pooled data from 52 studies, the prevalence of pain was found to be approximately 59% among patients undergoing active cancer treatment and over 50% across all cancer types, with the highest pooled prevalence of 70% among head/neck cancer patients [2]. These figures convey that cancer pain is perhaps not adequately addressed by the current healthcare system and underscore the significant challenges faced by treating oncologists and other medical professionals in the field of cancer pain management.

Cancer pain can range from mild to severe and from acute to chronic. Pain management can be challenging; not only can cancer pain be spontaneous, as in the case with the emergence of breakthrough pain [3] (i.e., sudden, transient exacerbation of pain intensity in patients with stable and controlled chronic pain) despite continued administration of analgesics [4], but it can also affect patients physically, emotionally, socially, and spiritually. Patients often experience significant anxiety and depression [5,6], as well as insomnia, fatigue, weakness, and other complications that can exacerbate each other, impair normal daily activities, and negatively impact quality of life [7–9].

Specific factors surrounding the massage protocol, as well as selection of appropriate controls and standard outcomes, need to be well-understood before definitive clinical conclusions and recommendations regarding the usage and implementation of massage can be made for cancer pain at a policy level. However, this review's promising results appear to warrant investment of time and resources into future research aimed at addressing these aforementioned gaps in order to ultimately consider massage therapy a standard treatment for cancer populations experiencing pain.

Pain is multi-dimensional and may be better addressed through an integrative approach. Massage therapy is commonly used among people seeking pain management and research has generally supported its use. But, until now there has been no published, rigorous review of the available research and evidence for its efficacy for pain populations, especially for cancer populations.

This systematic review and meta-analysis is the first to rigorously assess the quality of massage therapy research and evidence for its efficacy in treating pain, function-related and health-related quality of life in cancer populations. It is the second of a three-part series of articles which assessed research on massage therapy for various aspects of pain.

1. Lesage P, Portenoy RK. Trends in cancer pain management. *Cancer Control* 1999;6(2):136–45. Medline

2. van den Beuken-van Everdingen MH, de Rijke JM, Kessels AG, et al. Prevalence of pain in patients with cancer: A systematic review of the past 40 years. *Ann Oncol* 2007;18(9):1437–49. Abstract/FREE Full Text
3. Margarit C, Julia J, Lopez R, et al. Breakthrough cancer pain—Still a challenge. *J Pain Res* 2012;5:559–66. Medline
4. Smith H. A comprehensive review of rapid-onset opioids for breakthrough pain. *CNS Drugs* 2012;26(6):509–35. CrossRef Medline Web of Science
5. O’Mahony S, Goulet J, Kornblith A, et al. Desire for hastened death, cancer pain and depression: Report of a longitudinal observational study. *J Pain Symptom Manage* 2005;29(5):446–57. CrossRef Medline Web of Science
6. Archie P, Bruera E, Cohen L. Music-based interventions in palliative cancer care: A review of quantitative studies and neurobiological literature. *Support Care Cancer* 2013;21(9):2609–24. CrossRef Medline
7. Coleman EA, Goodwin JA, Coon SK, et al. Fatigue, sleep, pain, mood, and performance status in patients with multiple myeloma. *Cancer Nurs* 2011;34(3):219–27. CrossRef Medline
8. Dalal S, Hui D, Nguyen L, et al. Achievement of personalized pain goal in cancer patients referred to a supportive care clinic at a comprehensive cancer center. *Cancer* 2012;118(15):3869–77. CrossRef Medline
9. Reyes-Gibby CC, Wang J, Spitz M, et al. Genetic variations in interleukin-8 and interleukin-10 are associated with pain, depressed mood, and fatigue in lung cancer patients. *J Pain Symptom Manage* 2013;46(2):161–72. CrossRef Medline Web of Science

3. **New Research Analysis Indicates Value of Massage Therapy for Surgical Pain** – EVANSTON, Ill. September 14, 2016 – Based on the evidence, massage therapy can be effective for reducing pain intensity/severity and anxiety in patients undergoing surgical procedures. This is the conclusion of a collaborative meta-analysis of research on massage therapy for pain conducted by Samueli Institute and commissioned by the Massage Therapy Foundation, with support from the American Massage Therapy Association. This review and analysis is published in the September issue of the journal *Pain Medicine*.

The study concludes that patients should consider massage therapy as a therapeutic option to help manage their pain and anxiety from surgical procedures.

Pain management is a critical and challenging issue for patients who are either about to undergo or recovering from surgical or operative procedures. If postoperative pain is effectively managed at the acute stage or during immediate postsurgical periods, patients are often able to recover uneventfully and return to their normal daily activities [1]. However, a significant number of patients transition into chronic post-surgery pain (CPSP) [1,2] or persistent postsurgical pain [3], defined as pain lasting longer than 2 to 3 months after surgery [2,4]. One study assessing the cause of chronic pain reported that 22.5% of chronic pain was attributed to surgery [5]. Such pain places significant psychosocial and economic burdens on patients and represents a major public health problem [3,6].

Surgery-related pain is also closely associated with various functional outcomes, including sleep, mood, quality of life, and sleep disturbances [7]. And, patients who are about to undergo surgery commonly experience fear and anxiety, which complicate pre- and post-surgical pain management [4,8] and increases the likelihood of developing subsequent CPSP [4]. As pain becomes chronic, anxiety and fear intensify and avoidance behaviors become more frequent,

interfering with daily activities and negatively affecting the patients' emotional wellbeing and quality of life.

This systematic review and meta-analysis is the first to rigorously assess the quality of massage therapy research and evidence for its efficacy and effectiveness in treating pain, function-related and health-related quality of life outcomes for people with various types of surgical pain and anxiety.

1 DeFrances CJ, Cullen KA, Kozak LJ. National hospital discharge survey: 2005 annual summary with detailed diagnosis and procedure data. *Vital Health Stat* 2007;13 (1):1 209.

2 Peng Z, Li H, Zhang C, et al. A retrospective study of chronic post-surgical pain following thoracic surgery: Prevalence, risk factors, incidence of neuropathic component, and impact on quality of life. *PloS One* 2014;9 (2):e90014. doi:10.1371/journal.pone.0090014.

3 Sieberg CB, Simons LE, Edelstein MR, et al. Pain prevalence and trajectories following pediatric spinal fusion surgery. *J Pain* 2013;14 (12):1694–702.

4 Clarke H, Woodhouse LJ, Kennedy D, Stratford P, Katz J. Strategies aimed at preventing chronic postsurgical pain: Comprehensive perioperative pain management after total joint replacement surgery. *Physiother Can* 2011;63(3):289–304.

5 Crombie IK, Davies HT, Macrae WA. Cut and thrust: Antecedent surgery and trauma among patients attending a chronic pain clinic. *Pain* 1998;76 (1–2):167–71.

6 Jamison R, Edwards R. Integrating pain management in clinical practice. *J Clin Psychol Med Settings* 2012;19 (1):49–64.

7 Finan P, Goodin B, Smith M. The association of sleep and pain: An update and a path forward. *J Pain* 2013;14 (12):1539–52.

8 Adams R, White B, Beckett C. The effects of massage therapy on pain management in the acute care setting. *Int J Ther Massage Bodywork* 2010;3(1):4–11.5

How can I locate research studies online?

There are many ways to find research online and even become involved in research projects. The following are some websites that publish massage research or are involved in the research process itself:

- The AMTA - http://www.amtamassage.org/research/index.html?utm_source=%2fresearch&utm_medium=web&utm_campaign=redirect
- The International Journal of Therapeutic Massage & Bodywork: Research, Education & Practice - <http://www.ijtmb.org/index.php/ijtmb/index>
- The Massage Therapy Foundation - <http://www.massagetherapyfoundation.org/>
- The National Center for Complementary and Alternative Medicine - <http://nccam.nih.gov/health/massage>
- The Touch Research Institute - <http://www6.miami.edu/touch-research/AdultMassage.html>
- The US National Library of Medicine - <http://www.ncbi.nlm.nih.gov/pubmed/>

Sources:

<http://www.staff.blog.utm.my/pszresearchsupport/2011/09/19/4-major-types-of-qualitative-research/>

<http://www.ccs.neu.edu/course/is4800sp12/resources/qualmethods.pdf>

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<http://www.ncbi.nlm.nih.gov/pubmed/>

<http://www.massagetherapyfoundation.org/>

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<http://nccam.nih.gov/health/massage>

http://faculty.cbu.ca/pmacintyre/course_pages/MBA603/MBA603_files/IntroQualitativeResearch.pdf

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<http://www.humankinetics.com/excerpts/excerpts/steps-of-the-research-process>

http://www.researchproposalsforhealthprofessionals.com/definition_of_quantitative_resea.htm

http://www.sagepub.com/upm-data/36869_muijs.pdf

<http://ksumail.kennesaw.edu/~rouyang/ED-research/details.htm>

http://www.bcps.org/offices/lis/researchcourse/develop_quantitative.html

Massage Therapy Research Answer Sheet/Course Evaluation

NAME _____ DATE _____

ADDRESS _____

CITY/STATE/ZIP _____

PHONE _____ EMAIL ADDRESS _____

STATE OF LICENSURE AND LICENSE #: _____

Please use this answer sheet for completing the exam

- | | | |
|------------|-------------|-------------|
| 1. A B C D | 6. A B C D | 11. A B C D |
| 2. A B C D | 7. A B C D | 12. A B C D |
| 3. A B C D | 8. A B C D | 13. A B C D |
| 4. A B C D | 9. A B C D | 14. A B C D |
| 5. A B C D | 10. A B C D | 15. A B C D |

Please rate your opinion using the number system below:

1 – Strongly Agree 2 – Agree 3 – Indifferent 4 – Disagree 5 – Strongly Disagree

1. The textbook used contained valuable information _____
2. The course outline was easy to understand _____
3. Informational content of the course was interesting _____
4. Format of this course was easy to understand _____
5. The course was clear and to the point _____
6. The exam was challenging and informational _____
7. New insights were gained by completing the course _____
8. I am likely to take courses from your company again _____
9. The overall quality of this course was excellent _____
10. This program met my expectations _____
11. If needed, it was easy to contact the instructor _____

What did you like/dislike about this course?

Additional Comments

How did you hear about us (Please mark all that apply)?

Message Magazine Message Today Message Therapy Journal Message and
Bodywork Google MSN Friend Trade Show E-Mail Other _____

May we quote your comments? Yes No Signed _____

Massage Therapy Research Exam

1. What is research?
 - A. A point of reference; a point, line, or surface used as a basis for measurement or calculation in mapping and surveying
 - B. The systematic investigation into and study of materials and sources in order to establish facts and reach new conclusions
 - C. Variable quantity determining the result of a scientific experiment and can be altered to vary the result
 - D. The systemic investigation into activities that maintain health and related services that aim to maintain health through prevention and treatment of disease
2. All of the following are steps in the research process EXCEPT:
 - A. Choose a researcher
 - B. Identify a topic
 - C. Define the concepts and terms
 - D. Collect the data
3. Which of the following is included in the “develop the plan of study” step of a research study?
 - A. Reviewing research and literature
 - B. Defining the concepts and terms
 - C. Defining the populations/groups
 - D. Analyzing the data
4. Data gathered from a research study can be presented in which of the following ways?
 - A. Paragraph form
 - B. Charts and graphs
 - C. Statistics
 - D. All of the above
5. Which of the following are the two main approaches to conducting research studies?
 - A. Qualitative and quantitative
 - B. Grounded theory and case study
 - C. Descriptive and correlational
 - D. Phenomenology and experimental
6. Qualitative research studies focus on _____.
 - A. Mathematical and numerical data
 - B. Statistical data and cause-effect relationships
 - C. Explanations, descriptions, and meanings
 - D. Relationships among variables
7. Which of the following is a type of qualitative research study?
 - A. Ethnography
 - B. Correlational
 - C. Causal comparative
 - D. Experimental

8. All of the following are common methods of data collection in quantitative research EXCEPT:
- A. Focus groups
 - B. Experiments
 - C. Measuring values
 - D. Numerical rating scales
9. A hypothesis in descriptive research usually begins with:
- A. How much?
 - B. How often?
 - C. What percentage?
 - D. All of the above
10. All of the following are reasons why the study of research in massage is necessary EXCEPT:
- A. It allows massage therapists to learn about the effects of massage therapy and practice evidence based massage
 - B. It documents that what massage therapists do truly makes a difference in the health of clients/patients
 - C. It decreases the credibility of the profession and reduces respect for what qualified massage therapists offer
 - D. It helps massage therapists and body workers to choose the best treatment methods for their clients
11. Through research, massage therapy and bodywork treatment has been shown to do all of the following EXCEPT:
- A. Increase circulation and immune function
 - B. Reduce anxiety and edema
 - C. Reduce blood pressure and heart rate
 - D. Increase stress levels
12. Research studies on the effects of massage have been performed on which of the following conditions?
- A. Anxiety
 - B. Immune function
 - C. Pain and pain syndromes
 - D. All of the above
13. What is Research Perch?
- A. A podcast (online video) designed to help you learn how to use massage therapy research in your practice
 - B. A newspaper publication designed to help you learn how to use massage therapy research in your practice
 - C. A website with information designed to help you learn how to use massage therapy research in your practice
 - D. A telephone hotline designed to help you learn how to use massage therapy research in your practice

14. The August 17, 2016 press release by the Massage Therapy Foundation and American Massage Therapy Association states that, based on the evidence:
- A. Massage therapy does not show promise for reducing pain intensity/severity, fatigue, and anxiety in cancer populations compared to the active comparators evaluated in a new systematic review
 - B. Massage therapy shows promise for increasing pain intensity/severity, fatigue, and anxiety in cancer populations compared to the active comparators evaluated in a new systematic review
 - C. Massage therapy shows promise for reducing pain intensity/severity, fatigue, and anxiety in cancer populations compared to the active comparators evaluated in a new systematic review
 - D. Massage therapy does not show promise for increasing pain intensity/severity, fatigue, and anxiety in cancer populations compared to the active comparators evaluated in a new systematic review
15. All of the following organizations have websites that may be helpful in locating further research on massage EXCEPT:
- A. The International Journal of Therapeutic Massage & Bodywork
 - B. The Massage Therapy Foundation
 - C. The Touch Research Institute
 - D. The International Society of Massage

This completes the Massage Therapy Research exam.